Rational® Portfolio Manager

IBM

Release Notes

Rational® Portfolio Manager

IBM

GC23-7650-00

Version 7.0.5.5
Windows, UNIX

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Contents

Tables

About this book

This document outlines the IBM Rational Portfolio Manager 7.0.5.5 release notes. It covers migration procedures, new features added in this release, a list of known problems, and problems that have been fixed in this release.

Who should read this book

This document is intended for any IBM Rational Portfolio Manager user and database or system administrators responsible for IBM Rational Portfolio Manager upgrades.

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Chapter 1. About this release

Documentation updates

The following document is updated in this release:

- IBM Rational Portfolio Manager Web Services API Guide

All updated documents are available as part of product installation media, or from the IBM® Publications Center.

To locate the Publications Center for your area, go to http://www.ibm.com and search on the term **Publications center**. Follow the instructions at your Publications Center site to locate individual documents.

Security settings changes

This section describes the new or modified security settings in version 7.0.5.5 of IBM Rational Portfolio Manager. For more information on security settings refer to the security section of the online help.

New security rights for accessing Scope Management and Documents views from the navigation bar

New security rights have been added that control access to Scope Management and Documents views from the navigation bar. Hiding these views will improve performance by not loading thousands of scope elements and documents for all projects that are visible in the Work Management view. By default, these security rights are granted for all resources with access to Scope Management and Documents views.

Disabling access to the Scope Management and Documents navigation bar at the group level

Application Administrators can disable the access to the Scope Management and Documents navigation bar for the security groups. To do this:

1. Logon to Rational Portfolio Manager as an Administrator.
2. Select the Application Administration navigation bar.
3. Click the **Security** tab.
4. In the left frame click the **Default Security/Settings** sub-tab.
5. Select a role-based security that you want to disable the views access for.
6. In the right frame click the **Application** tab.
7. Clear the check boxes for **Can Access Documents from Left Navigator and All Documents in My Portal** and **Can Access Scope Management from Left Navigator and All Scope Elements in My Portal**.

This action will hide the Scope Management and Documents from the navigation bar and All Scope Elements and All Documents from My Portal page for all resources that belong to the selected role-based security group.

Disabling access to the Scope Management and Documents navigation bar at the resource level

Resource Managers can disable the access to the Scope Management and Documents navigation bar for individual resources in their resource pool. To do this:

1. Logon to Rational Portfolio Manager as a Resource Manager.
2. Select the Resource Management navigation bar.
3. Expand a pool and select the required resource.
4. Double-click the resource to open the description view.
5. Check out the description view.
6. Expand the **Application/My Settings** portlet.
7. Clear the check boxes for **Can Access Documents from Left Navigator and All Documents in My Portal** and **Can Access Scope Management from Left Navigator and All Scope Elements in My Portal**.
8. Check in the description view to save your changes.

This action will hide the Scope Management and Documents from the navigation bar and All Scope Elements and All Documents from My Portal page for the selected resource.

New security rights to display resource rates information in the Timesheet pivots

Two new role-based security rights have been added that control the visibility of resource rates columns in the Timesheet and Timesheet Step pivots. To grant these security rights:

1. Logon to Rational Portfolio Manager as an Administrator.
2. Select the Application Administration navigation bar.
3. Click the Security tab.
4. Click the WBS tab and expand the Project Group.
5. Select the required role-based security.
6. In the right frame expand **Portfolio Viewer** and then, **View Pivots**.
7. Select the check boxes for **Timesheets with Rates** and **Timesheets Step with Rates** to grant resource rates information access.

Security change to modify Billable field in the Staffing view

The ability to modify the **Billable** field under the **Cost/Selling Rate** band of the Staffing view is now controlled by **Can Modify Assignment** security right instead of **Cost/Rates** security. To grant this security right:

1. Logon to Rational Portfolio Manager as an Administrator.
2. Select the Application Administration navigation bar.
3. Click the Security tab.
4. Click the WBS tab and expand the required Group.
5. Select the required role-based security.
6. In the right frame expand **Staff Acquisition**.
7. Select the check box for **Can Modify Assignment**.

Latest supported operating environments

The following tables list the latest Rational® Portfolio Manager supported operating environments:

Table 1. Rational Portfolio Manager supported databases

Database	Version	Operating system	Hardware architecture
DB2®	8.2*	Windows® 2000 FP 4	Xeon™, Itanium® 2
DB2	8.2	Windows 2003	Xeon, Itanium 2
DB2	8.2	AIX® 5.3	P5
DB2	8.2	AIX 5.3 (64 Bit)	P5
DB2	8.2	Red Hat Linux® AS Version 3	Xeon
DB2	8.2	SuSE Linux 9.2	Xeon
DB2	8.2	Solaris 8	SPARC
Oracle	9.2.0.8	Windows 2000	Xeon, Itanium 2
Oracle	9.2.0.8	Windows 2003	Xeon, Itanium 2
Oracle	9.2.0.8	AIX 5.3	P5
Oracle	9.2.0.8	HP-UX B.11	HP PA-RISC
Oracle	9.2.0.8	Red Hat Linux AS Version 3	Xeon
Oracle	9.2.0.8	SuSE Linux v9.2	Xeon
Oracle	9.2.0.8	Solaris 8 and 9 (64 Bit)	SPARC
Oracle	10.2.0.3	Windows 2000 FP 4	Xeon, Itanium 2
Oracle	10.2.0.3	Windows 2003	Xeon, Itanium 2
Oracle	10.2.0.2	AIX 5.3	P5
Oracle	10.2.0.2	AIX 5.3 (64 Bit)	P5
Oracle	10.2.0.3	Red Hat Linux AS Version 3	Xeon
Oracle	10.2.0.3	Red Hat Linux AS Version 3 (64 Bit)	Xeon
Oracle	10.2.0.3	SuSE Linux v9.2	Xeon
Oracle	10.2.0.3	Red Hat Enterprise Linux Version 4 (64 Bit)	Xeon

* Latest DB2 Fix Pack certified is 14.

Table 2. IBM Rational Portfolio Manager supported application servers

Application Server	Version
WebSphere®	5.1 and 6.0
Apache Tomcat	5.5
WebLogic	8.1.5
Oracle Application Server	9.0.4 and 10.1.0.2

Customer change requests implemented in 7.0.5.5

This section describes the customer change requests implemented in version 7.0.5.5 of IBM Rational Portfolio Manager.

Editing multiple items

You can select multiple items in the Work Management, Scope Management, and Documents views, and copy or paste or move to a different location at the same time. To use this functionality in any of the above mentioned views:

1. Select multiple items by using the **Shift** or **Ctrl** keys on your keyboard.
2. Right-click and select **Edit**.
3. Select **Cut** or **Copy** from the secondary menu.

Note: In the Work Management view, only elements of the same type can be selected together. The Rational Portfolio Manager nesting rules are enforced.

Approving or rejecting multiple timesheet records

You can select multiple timesheet records in the Timesheets view and approve or reject them simultaneously. To use this feature:

1. Select Timesheets from the navigation bar.
2. From the filter area, select one of **My Teams' Work** filters.
3. From the date selection in the toolbar, select a week that has a submitted timesheet.
4. Expand the projects to the resource level.
5. Using the **Shift** or **Ctrl** keys on your keyboard, select multiple resources.
6. Right-click and approve or reject the timesheet by selecting the option.

Note: If you select only one resource, you need to check out the timesheet before you can approve or reject. If you select multiple resources, you do not need to check out the timesheets.

Partially assign a resource towards a profile

Using this feature you can partially replace a profile assignment with multiple resources with different work contours. To do this:

1. In the Work Management view select a project or a task.
2. Click the **Staffing** icon in the toolbar and select **Search/Assign**.
3. Under **Search/Create** click the down arrow and select **Profile** from the list.
4. Enter the required time in the **Work** field, for example, 40 hours.
5. Expand the Competencies category to the competency level and click the **Add** button.
6. Click **Create Profile**.
7. Click the **Staffing** icon in the toolbar and select **Demand/Supply**.
8. Right-click the profile and select **Search/Assign**.
9. In the **Work** field enter less time than the original profile assignment, for example 20 hours and search for a resource.
10. In the Results Set tab right-click the required resource and select **Replace**.
11. Back in the Demand/Supply view right-click the profile and select **Search/Assign**.
12. Search for another resource and assign the remaining profile assignment.

New bands and headers

The following bands and headers are added:

- Results Set tab > lower frame > Baseline (Initial) band > Start, Finish, Work headers: Display the start date, finish date, and the amount of work of the original profile assignment.
- Results Set tab > lower frame > Name band > Profile Name header: Displays the original profile name.

Business rules

1. There is no partial replacement when replacing multiple assignments (assignments to different tasks) of the same profile within the current project.
2. The Baseline (Initial) band displays the original profile assignment start date, finish date, and work. When the very first resource replacement occurs, the system executes a baseline action for the profile assignment automatically.
3. When replacing a profile at the project or task level, the start date, finish date, work, and contour could be different from the original profile assignment.
4. If the total work of the resource replacement is less than the requested profile work, then the original profile assignment is maintained. The profile work balance is equal to the original work minus the total replacement work.
5. If the remaining work of the original profile is zero, the original profile assignment will be retained with zero work, blank start and finish dates and daily work contour. If the remaining work of the original profile is zero, then further resource replacements will be disabled.
6. The system maintains the original profile assignment with zero work, if the profile is affected to the project or at the task level, as long the task is in proposed mode. When you copy proposed to plan dates, the system will automatically remove the profile assignments with zero effort at the task level (there is no warning message).
7. It is possible to partially replace a profile with a resource that has already been assigned to the project or to the same element with or without effort.
8. If the EETC is updated (increase or decrease) at the resource replacement level and the resource is removed and replaced with the original profile, the total work including the revised EETC will be added back to the original profile assignment.
9. The start and finish dates of the profile assignment will not change if the daily contour work in the resource replacement is less than daily contour work of the original profile assignment.
10. The start and finish dates of the profile assignment will not change unless the resource replacement forces the system to change the start or finish dates.
11. If after resource replacement the profile assignment start date needs to be recalculated, then the new start date is the first date available after the latest finish date of all resource replacements.
12. If there is a gap between resource replacements, overlapping, or resource replacement contour is different from the original requested contour, then the new start date is the first date available, not necessarily after the latest finish date of all resource replacements.
13. When replacing a profile with a resource, it is possible that the task start and finish dates will be recalculated.
14. When a resource replacement is removed, the remaining work assigned to the resource will be added back to the original profile work and the system will recalculate the new start or finish dates of the profile assignment, based on the current search and assign rules.

15. When removing a resource replacement with actual work and replacing it with the original profile, the actual work will be retained and the unassigned remaining work will be added back to the original profile assignment.

16. When removing a resource replacement which has a different contour than the original profile assignment contour, the original profile contour will not change.

17. The original profile assignment can be deleted at any point in time including after resource replacements.

18. If the resource replacement is deleted after the original profile assignment was deleted, the original profile assignment will be restored with the initial baseline, along with the work and dates of the deleted resource replacement.

Taking ownership of a workflow checklist step

When the workflow is in execution, all participants are required to provide their feedback. If one of the participants is not available to respond to a step, the workflow will not continue to the next step. For this reason, an option is provided to take ownership of a workflow process. To design a shared checklist response:

1. Select the Workflow Design navigation bar.
2. Expand the required element.
3. Double-click the required workflow process to open.
4. Select the Reserve icon to check out the workflow process.
5. Double-click the required step to open the Step Configuration window.
6. Select the Response tab and from the Type field select **CheckList**.
7. Select the **Shared CheckList** check box.
8. Close the Step Configuration window and select the Release icon to check in the workflow process.

To take ownership of a workflow checklist step in execution:

1. Open the Step Response window.
2. Click the **Take Ownership** button in the toolbar.
3. Click Submit.
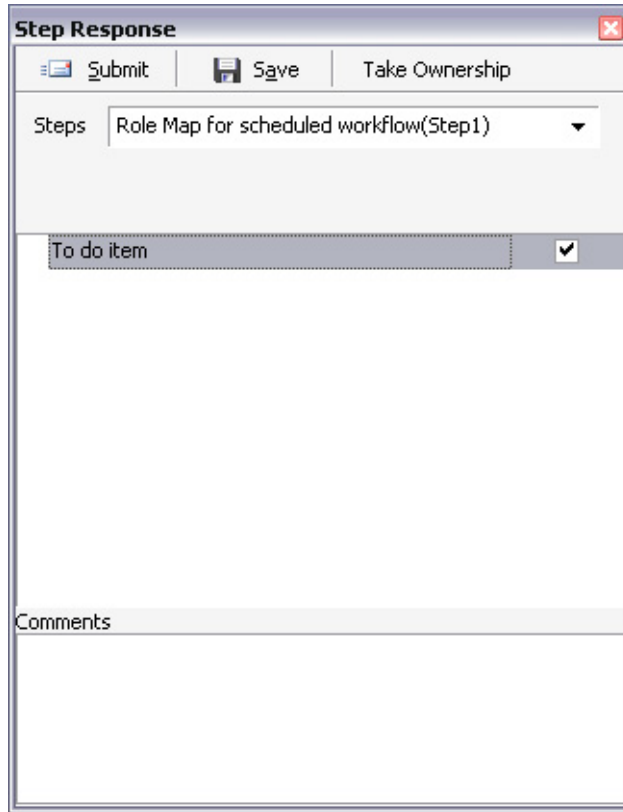
Business rules

1. When a workflow checklist step is configured as shared, ownership can be obtained at execution time and the **Take Ownership** button will be available for participants in the Step Response window.
2. If a participant takes ownership, the other workflow notifications will be disabled but remain in the history.
3. The Take Ownership option can be changed after saving.
4. The Take Ownership option cannot be changed after submitting.

Using resource's project role to direct workflow processes

With this feature you can use the resource project securities as a new group in the workflow step condition. This eliminates creating a separate workflow processes for different project security groups.

To use this feature:

1. Select the Workflow Design navigation bar.
2. Expand the project node and double-click a workflow process to open.
3. Select the Reserve icon to check out the view.
4. Double-click a step to open the Step Configuration window.
5. Select the Outcome tab.
6. Click the field under the Conditions column to open the Workflow Condition window.
7. Drag the Condition icon under the project, name it and press Enter to open the Conditions window.

8. In the Conditions window drag the Variable/Function icon to open the Condition Parameters window.
9. Expand Project Variables and select the Assigned Resource node, click OK.
10. In the Edit field under the Value band, click the ellipsis to open the Security window.
11. Select a security role and click OK.
12. Click OK to close the Conditions window.
13. Click Select to close the Workflow Condition window.
14. Click Close to close the Step Configuration window.
15. Select the Release icon to check in your workflow process.

Business rules
1. When a workflow process is in execution, this type of condition will query the workflow attachment creator's security right at the project level.
2. If the creator is no longer associated with the project, the security role will be "external assignment".

Ability to enable or disable workflow email notifications

With this feature you can disable email notifications while designing and testing workflow processes.

To use this feature:
1. Select the Workflow Design navigation bar.
2. Expand a category and double-click a process to open.
3. Click the Reserve icon to check out the view.
4. Double-click the required step to open the Step Configuration window.
5. Select the Participants tab.
6. Select the check boxes of the participants you want to send the notification to under the **Notify by Email** column.

Business rules
1. The configuration is done at the workflow step > participants level.
2. By default, no notification is sent to participants.
3. Only the enabled participants will be notified.
4. System configuration overrides the email settings.

Chapter 2. Status of change requests

This section explains the status of noteworthy problems in this release.

Known problems

This section describes known problems in this release of Rational Portfolio Manager.

Incorrect information in the Time-Phased tab of the Financials portlet

After removing a profile assignment from a project, the Time-Phased tab in the Financials portlet does not reflect the changes and shows incorrect information. There is no workaround for this issue in this release.

Leveling project assignments

When leveling a portfolio with over-allocated resources, Rational Portfolio Manager does not resolve the resource over-allocation. There is no workaround for this issue in this release.

Incorrect ETC values in the Summary tab of Financials portlet

The Summary tab of Financials portlet displays incorrect ETC values for Non-Labor Expenses. As a result, the EAC and EAC Variance are also calculated incorrectly. There is no workaround for this issue in this release.

Actual effort is lost when resources are replaced by profiles

When replacing resources that have actual effort entered in their timesheet with a profile, the effort is not transferred back to the original profile assignment. There is no workaround for this issue in this release.

Pool names for profiles in the Supply/Demand pivot

The pool names for profiles in the Supply/Demand pivot are not displayed. There is no workaround for this issue in this release.

Archiving projects in the Investment Maps view, does not remove the element from the Work Management view

Projects that are sent to archive from the Investment Maps view, remain visible in the Work Management view. The workaround for this issue is to refresh the Work Management view.

ProjectConsole RGSE (RPM General Scope Elements) collection with all attributes selected in a template

When you select all of the RGSE attributes in a domain source template and run the collection, the ProjectConsole database is locked and no further collection is permitted. There is no workaround for this issue in this release.

PMR 18177 999 000; Applying iFix001 for ProjectConsole breaks the integration between Rational Portfolio Manager and ProjectConsole

In order to configure the RPM/ProjectConsole integration to communicate using HTTP, users are required to modify the `PJC.Properties` and `PJC.Properties.orig` configuration files on the ProjectConsole™ server, setting the flag `ALLOW_HTTP=true`. Currently, when you install an update to the ProjectConsole server (iFix, FixPack, etc.), that configuration file is getting overwritten with a new version.

After installing any upgrades to the ProjectConsole server, you need to update the `PJC.Properties` and `PJC.Properties.orig` files and add the `ALLOW_HTTP=true` flag back in. This issue will be addressed in a future release of ProjectConsole.

Microsoft .NET version 1.1 limitations

Due to the limitation that in Microsoft® .NET 1.1 C# is unable to send null values, customers should be aware that integrations built, using the Rational Portfolio Manager Web Services API, might experience problems when default object property values are set to null. There is no workaround for this issue in this release.

Microsoft .NET version 2.0 limitations

Integrations built using the Rational Portfolio Manager Web Services API with Microsoft .NET 2.0 framework will result in experiencing problems due to the following limitations in Microsoft .NET 2.0.

- C# is unable to decode enumeration values from the SOAP messages RPC encoded mode.
- C# has problems decoding arrays from the SOAP messages in RPC encoded mode.

The workaround is to use the Microsoft .NET version 1.1 framework when developing integrations with the Rational Portfolio Manager Web Services API.

Web Service API field in the WorkElement container

All Xpath queries with the WorkElement.lastModifiedDate field must include the timestamp portion of the date because this field is stored as a TIMESTAMP in the database. If the time portion is not included, you will receive a database error.

Web Services API actual finish date remains null when actual start date and actual duration are saved in minutes

When you save a WorkElement's actual start date and an actual duration in minutes, the actual finish date should be populated on reload, however, the actual finish date remains null. There is no workaround for this issue in this release.

Weekly Timesheet pivot

The Timesheet pivot displays two rows for some weeks when the Weekly option is selected. There is no workaround for this issue in this release.

Long file names in Microsoft Project

Microsoft Project files in Simplified Chinese that have a file name of more that 133 Chinese characters will fail when importing to Rational Portfolio Manager. The workaround is to rename the file to use less that 133 characters.

PMR 71380 999 672; Workflow conditions with Chinese characters

Rational Portfolio Manager crashes when trying to modify the workflow conditions with Chinese characters. There is no workaround for this issue in this release.

Problems fixed in this release

This section lists the problems fixed in this release of Rational Portfolio Manager.

Table 3. Customer originated problems fixed in this release

PMR ID	APAR ID	Description
01229 SGC 848		Unhandled Error 6550 when running the Project Profit and Loss report.
01290 SGC 848	PK08637	Timesheets not submitted report displaying incorrect data.
01570 49R 000	PK26241	BMS Exchanger returns EXCH093 error.
01866 999 862		Rational Portfolio Manager database becoming unresponsive.
12221 650 706	PK61618	Bypass of security setting "Can Assign/Affect Resource to Project with Effort".
12796 650 706	PK41702	Ready to Start filter does not work with template.
24758 230 631		Project ID and Reference number in resource utilization pivots.
30824 999 000	PK36534	Error 6502 when selecting the Resource Management view.
31812 999 000		Automated transfer to WBS generates an error message.
33151 999 000	PK37544	100012 error when logging in through proxy.
34886 999 000	PK39145	Supply and Demand pivot displays wrong information in RPM 7.0.4.4.
34941 999 000	PK39667	Cannot create trend graphs in Rational Portfolio Manager against the Project Console warehouse for RPM data.
34942 999 000		Changes to an existing PjC chart do not get propagated correctly.
36875 49R 000; 35920 49R 000		Negative duration during rollup.
40737 999 000	PK39801	Subsets SubDBDataSet_C, SubDBDataSet_D and SubDBDataSet do not have Project ID for the WBS Elements Attributes report.
40778 999 000	PK39826	7044 middleware must have multiple DSN alert server code.
42721 999 000	PK41584	Users can access By Invitation documents when drag and dropped to a public folder.
45960 000 856	PK42740	Cannot select a resource manager from the pool list for staffing requests.
48286 49R 000		HTTP redirect not working.
48380 49R 000	PK37034	New Workflow model queries in the middleware causes race condition in a WAS cluster environment.

Table 3. Customer originated problems fixed in this release (continued)

PMR ID	APAR ID	Description
49279 49R 000	PK37577	Unable to open ″GSRisk″ (.rml) file.
49347 49R 000	PK37853	Exporting to CSV generates an EOutOfResources error message.
54034 999 616	PK37000	Resource is always replaced by Default Competency.
57357 033 000	PK35874	Timesheets Not Submitted report is displaying resources who have submitted their timesheets.
60364 999 000	PK37658	After ″Calculate/Level″, resource assignments do not honor ″Affected″ resource contours. The resource gets over-allocated.
61005 49R 000	PK38896	Access violation error when running the Scope pivot.
61175 999 724	PK36591	Flexible date selection in pivots and reports.
71480 370 000	PK37057	The dependencies among tasks are corrupted after adopting summary task template.
76027 999 000	PK29185	Incorrect BCWS in Earned Value.
79312 442 000	PK37452	ORA-01426: numeric overflow when calling SP_ROLLUP version 6.0.0.0.
81816 999 672	PK37388	RPM idles when accessing My Portal and Communication view.
85747 010 678	PK39204	-803 Database error on updating calendar and on timesheet check-in.
85917 010 678		Resource can't be removed from project after submitting actuals.
78742 999 672		Ability for RPM e-mails to work correctly in clustered WAS server.

Chapter 3. Migrating to this version

Before you begin

Before you proceed with the migration, you need to backup the IBM Rational Portfolio Manager database. Make sure that total recovery of the database is possible from this backup. All database migration instructions listed below must be done by the instance owner and the user who connects to the database from the Web server.

Note: If you were unsuccessful during migration, you need to restore your old database, check the log files to troubleshoot, and restart the migration steps.

Note: All migration scripts, when transferred to the AIX host, should preserve their Type/Mode (ASCII/BIN) and Right (file ownership).

Migrating IBM Rational Portfolio Manager on DB2 for the UNIX system

This section describes how to migrate the Rational Portfolio Manager database from version 7.0.4.4 to version 7.0.5.5 on DB2 for the UNIX® system.

Note: (for Database Administrators) For RPM Database maintenance, it is a good practice to schedule a nightly job that will run `REORG` and `RUNSTATS` on RPM database tables and then do a rebind of RPM packages using the following command:

```
db2rbind database /l logfile all /u userid /p password
```

You can use `ReorgStats70.sh` located in the `${MIGRATION_HOME}/Database/DB2/Unix/migration`.

Prerequisites for migration

- A successful Rational Portfolio Manager version 7.0.4.4 installation
- Rational Portfolio Manager version 7.0.5.5 migration package
- DB2 v 8.2
- DB2 migration is performed through a manual process, and the migration steps use a UNIX shell script. The RPM migration procedure uses a bourne shell interpreter
- Make sure that all `.sh` files located under `${MIGRATION_HOME}/Database/DB2/Unix/migration`, `${MIGRATION_HOME}/Database/DB2/Unix/migration_SunOS`, `${MIGRATION_HOME}/Database/DB2/Unix/csp_Aix`, (if using 32 bit DB2 instance) `${MIGRATION_HOME}/Database/DB2/Unix/csp_Aix64` (if using 64 bit DB2 instance), `${MIGRATION_HOME}/Database/DB2/Unix/csp_Linux`, and `${MIGRATION_HOME}/Database/DB2/Unix/csp_SunOS` have execute rights.

Definition of terms used in this section

- **Instance Owner**: is the user who owns the DB2 Instance which is defined as logical database server environment.
- **Connected User**: is the user who connects to database from the Web application and has been granted rights to make update, insert, delete, select on database tables. Connected User can be the instance owner too.

You can migrate the database using the schema of your choice:

- Scenario 1: All tables are created using the user name of the instance owner as the schema name. The instance owner is the user who connects to database from the Web application.
- Scenario 2: All tables are created using the user name of the instance owner as the schema name. The connected user is the user who will be connecting to the database from the Web application. The table aliases are created for the connected user. The alias names are created using the user name of the connected user as alias names.

Note: Choose the scenario that you are using with your current RPM database.

The migration process uses scripts to supply all corresponding values for the parameters. A message is displayed for each step and a log file is created for each step that you might need to look at in case of unsuccessful migration. You will be asked a series of questions to provide values for parameters.

The log files for AIX and Linux are located in `${MIGRATION_HOME}/Database/DB2/Unix/migration/Logs`and the log files for Sun operating system are located in `${MIGRATION_HOME}/Database/DB2/Unix/migration_SunOS/Logs` folders. The one main script `migration7055.sh` performs all of the steps for the migration.

Migration steps

1. Stop the Web application and the Alert server associated with the RPM database.
2. If you are migrating on AIX or Linux operating systems, go to `${MIGRATION_HOME}/Database/DB2/Unix/migration` and run:

   `./migration7055.sh`
3. If you are migrating on Sun operating system, go to `${MIGRATION_HOME}/Database/DB2/Unix/migration_SunOS` and run:

   `./migration7055.sh`

Steps used when migrating from version 7.0.4.4

Although the steps in this section describe what is happening during migration, you need to be prepared to check the log files, especially in steps 15 and 17.

1. Renames the existing RPM library file located in the `${INSTHOME}/sqllib/function` from `ibmrpm.so` to `ibmrpm_7044.so` for backup, where `${INSTHOME}` is the path to DB2 instance directory where DB2 is installed.
2. Copies the RPM library file from `${MIGRATION_HOME}/Database/DB2/Unix/csp_Aix` (if using AIX 32 bit DB2 instance), `${MIGRATION_HOME}/Database/DB2/Unix/csp_Aix64` (if using AIX 64 bit DB2 instance),`${MIGRATION_HOME}/Database/DB2/Unix/csp_Linux` (if using Linux) or `${MIGRATION_HOME}/Database/DB2/Unix/csp_SunOS` (if using Sun operating system) to `${INSTHOME}/sqllib/function/` folder.
3. Gets the name of the operating system in use (if the operating system is AIX then will ask for 32 or 64 bit DB2 instance).
4. Checks for the version number in RPM database table to decide whether to continue or exit. If the version is not 7.0.4.4, the process exits.
5. Stops and starts RPM database.
6. Drops triggers > `drop_triggers70.out`.
7. It starts the migration process > `migration7055.out`.

8. If using scenario 2 creates alias and grants rights for new tables added in migration to the connected user.

9. Creates triggers > `triggers70.out`.

10. Runs statistics on tables > `Reorgstats70.out`.

11. Creates stored procedures for v 7.0.5.5 > `createsp.out`.

12. Binds RPM v 7.0.5.5 code > `bindall.out`.

13. Runs procedures to fill custom pivot data > `custom_pivot_initdb.out`

14. Verifies the count of RPM database objects after migration (table, index, trigger, UDF, and stored procedure counts).

15. The results from step 14 and the required RPM database objects for RPM v 7.0.5.5 are copied into `${MIGRATION_HOME}/Database/DB2/Unix/migration/Logs/ DB_CHECK.out` folder. Verify the `DB_CHECK.out` file for differences. In case of having fewer DB objects than required for RPM v 7.0.5.5 contact support. See Chapter 4, "Contacting IBM Customer Support for Rational software products," on page 25.

16. Verifies if DDL changes during migration were successful and displays the corresponding success/failure message on the screen and prints out the report into the `DB_CHECK.out` file.

17. Checks for successful RPM database code migration > Output will be displayed on the screen and the report will be printed into the `DB_CHECK.out` file.

Note: If the output file contains 7.0.5.5, the migration is successful, if not, then verify all of the log files. In any case it is a good practice to check all the log files.

Note: During the migration steps you might see the following SQLSTATE numbers in your log files. These can be ignored because they are only warnings:
  - `SQLSTATE=02000 (...the result set of the query is an empty table)`
  - `SQLSTATE=42704 (...is an undefined name)`

Earned Value enablement

If you are using the Earned Value functionality of IBM Rational Portfolio Manager and you want the values to be updated on a regular basis for all projects, then you can schedule a job that will execute the stored procedure call to update these values. You can use the `rollup_ev.sql` file located in the `${MIGRATION_HOME}/ Database/DB2/Unix/migration` directory by editing the file and adding the right parameters for the database name, username, and password. Username and password can be the username and password of the instance owner or the connected user depending on the database scenario you are using. This file connects to the Rational Portfolio Manager database specified and calls the earned value stored procedure to update Earned Value for all projects.

Note: It is a good practice to run the scheduled job during off hours when system usage is minimal.

Migrating IBM Rational Portfolio Manager on Oracle for the UNIX system

This section describes how to migrate the IBM Rational Portfolio Manager database from version 7.0.4.4 to version 7.0.5.5 on Oracle for the UNIX system.

It is also possible to run the migration scripts from a remote machine. In this case, you need to make sure you can connect to the remote database using SQLplus.

Note: IBM Rational Portfolio Manager 7.0.5.5 migration script uses `SQLplus` located under `${ORACLE_HOME}/bin` directory. Therefore, you should run the migration scripts on a machine that has this utility.

Prerequisites for migration

- A successful Rational Portfolio Manager version 7.0.4.4 installation
- Rational Portfolio Manager version 7.0.5.5 migration package
- `SQLplus` utility for running Oracle migration scripts
- Oracle migration uses shell scripting in bourne shell environments (sh shell)
- Make sure that you have execute rights for `mig_owner.sh` and `mig_con_user.sh` files

Migration steps

Rational Portfolio Manager migration to version 7.0.5.5 has two steps:

1. Migrating RPM schema owner
2. Migrating RPM connected user (if a connected user is used)

Steps to migrate RPM schema owner

1. Tablespaces used in the migration scripts are:
   - `PMO_IDX_64K` for indexes
   - `PMO_DATA_64K` for tables
   - `PMO_LOB_64K` for lobs

   Note: If the tablespaces in your RPM database are different from the above mentioned names, you need to change the name of the tablespaces in the migration scripts in the following file:

   `${MIGRATION_HOME}/Database/Oracle/scripts/step1.sql`

2. Stop the application server associated with the RPM database.
3. Shut down the RPM database.
4. Start the RPM database.
5. Open a shell window and change the directory to `${MIGRATION_HOME}/Database/Oracle` and run `./mig_owner.sh`.
6. Have you performed pre_migration steps? Before migrating you need to back up your database, if you have a back up, answer yes to continue. If you answer no, no migration will be performed.
7. The script uses the `${ORACLE_HOME}` environment variable of the machine which you are running the script from. Enter the required information when prompted.
8. Is your RPM database installed on this machine? If you answer no, you will be prompted to enter:
   - TNS string
   - IBMRPM schema owner
   - IBMRPM schema owner password

   If you answer yes, you will be prompted to enter:
   - ORACLE_SID value

- IBMRPM schema owner
- IBMRPM schema owner password

9. Are you sure you want to migrate your database now? Answer yes to start the migration.

10. At the end of migration you will be provided with a migration report. The migration report includes the following information:
    - The current version of the database (which at this level must be 7.0.5.5)
    - The number of invalid objects in the database (which should be 0)
    - The number of objects (needed for 7.0.5.5) for each object type and their status in the migrated RPM database

      Comparing the number of objects for each object type in the **YOUR_RPM_DATABASE** and **NUMBER_OF_OBJECTS_MUST_BE** columns helps you to check if the migration has been successful. These values should be equal.
    - The name and type of the missing objects in your database
    - The list of error messages generated during DDL migration (if any)

11. Migration log files will be created under `${MIGRATION_HOME}/Database/Oracle/logs` folder. It is always a good practice to look at the log files to see if migration was successful.

12. Stop the Oracle listener:

    `${ORACLE_HOME}/bin/lsnrctl stop`

13. `LevelingLib.so` located under `${MIGRATION_HOME}/Database/Oracle/leveling/[your OS/your Oracle version]` folder must be manually copied to the right location on the database server.

14. Start the Oracle listener:

    `${ORACLE_HOME}/bin/lsnrctl start`

Steps to migrate RPM connected user

1. Open a shell window and change the directory to `${MIGRATION_HOME}/Database/Oracle` and run `./mig_con_user.sh`.

2. The script uses the `${ORACLE_HOME}` environment variable of the machine form which you are running the script. Enter the required information when prompted.

3. Is your RPM database installed on this machine? If you answer no, you will be prompted to enter:
   - TNS string
   - IBMRPM schema owner
   - IBMRPM schema owner password

   If you answer yes, you will be prompted to enter:
   - Verify the ORACLE_SID value
   - Enter IBMRPM schema owner
   - Enter IBMRPM schema owner password

4. Enter the RPM connected user name when prompted.

5. Enter the RPM connected user password when prompted.

6. Enter the password for sys user when prompted.

7. Are you sure you want to migrate your connected user now? Answer yes to start the migration.

8. Migration log files will be created under ${MIGRATION_HOME}/Database/Oracle/ logs folder. It is always a good practice to look at the log files to see if the migration was successful.

Migrating Rational Portfolio Manager on DB2 for Windows

This section describes how to migrate the Rational Portfolio Manager database from version 7.0.4.4 to version 7.0.5.5 on DB2 for Windows.

Note: (for Database Administrators) It is a good practice for RPM Database maintenance, schedule a nightly job that will run REORG and RUNSTATS on RPM database tables and then do a rebind of RPM packages using the following command:

```
db2rbind database /l logfile all /u userid /p password
```

You can use ReorgStats70.bat located in the %MIGRATION_HOME%\Database\ DB2\Windows\migration.

Prerequisites for migration

- A successful IBM Rational Portfolio Manager version 7.0.4.4 installation
- IBM Rational Portfolio Manager version 7.0.5.5 migration package
- DB2 v 8.2

Definition of terms used in this chapter

- **Instance Owner**: is the user owning the DB2 Instance which is defined as logical database server environment.
- **Connected User**: is the user who connects to database from the Web application and has been granted rights to make update, insert, delete, select on database tables. Connected User can be the instance owner too.

You can migrate the database using the schema of your choice:
- Scenario 1: All tables are created using the user name of the instance owner as the schema name. The instance owner is the user who connects to database from the Web application.
- Scenario 2: All tables are created using the user name of the instance owner as the schema name. The connected user is the user who will be connecting to the database from the Web application. The table aliases are created for the connected user. The alias names are created using the user name of the connected user as alias names.

Note: Choose the scenario that you are using with your current RPM database.

The migration process uses a batch process to supply all corresponding values for parameters. A message is displayed for each step and a log file is created for each step that you might need to look at in case of unsuccessful migration.

The log files are located in %MIGRATION_HOME%\Database\DB2\Windows\migration\ Logs folder. There is one main batch process called migration7055.bat which performs all steps in the migration. During migration process you will be asked a series of questions to supply corresponding values for parameters.

Migration steps

1. Stop the Web application and the Alert server associated with the RPM database
2. Go to `%MIGRATION_HOME%\Database\DB2\Windows\migration` and run:
   `migration7055`

Batch process steps used when migrating from version 7.0.4.4

Although the steps in this section describe what is happening during migration, you need to be prepared to check the log files, especially in step 13.

1. Renames the existing RPM library file located in the `%DB2TEMPDIR%function` and `%DB2TEMPDIR%function\Unfenced` from `ibmrpm.dll` to `ibmrpm_7044.dll` for backup.
2. Copies the RPM library file from `%MIGRATION_HOME%\Database\DB2\Windows\csp` folder into `%DB2TEMPDIR%function` and `%DB2TEMPDIR%function\Unfenced` folders.
3. Checks for the version number in RPM database table to decide whether to continue or exit. If the version is not 7.0.4.4, the process exits.
4. Stops and starts RPM database.
5. Drops triggers > `drop_triggers70.out`.
6. It starts the migration process > `migration7055.out`.
7. If using scenario 2 creates alias and grants rights for new tables added in migration to the connected user.
8. Runs statistics on tables > `Reorgstats70.out`.
9. Creates stored procedures for v 7.0.5.5 > `createsp.out`.
10. Binds RPM v 7.0.5.5 code > `bindall.out`.
11. Runs procedures to fill custom pivot data > `custom_pivot_initdb.out`
12. Verifies the count of RPM database objects after migration (table, index, trigger, UDF, and stored procedure counts).
13. The results from step 12 and the required RPM database objects for RPM v 7.0.5.5 are copied into `%MIGRATION_HOME%\Database\DB2\Windows\migration\Logs\DB_CHECK.out` folder. Verify the `DB_CHECK.out` file for differences. In case of having fewer DB objects than required for RPM v 7.0.5.5 contact support. See Chapter 4, "Contacting IBM Customer Support for Rational software products," on page 25.
14. Verifies if DDL changes during migration were successful and displays the corresponding success/failure message on the screen and prints out the report into the `DB_CHECK.out` file.
15. Checks for successful RPM database code migration > Output will be displayed on the screen and the report will be printed into the `DB_CHECK.out` file.

Note: If the output contains 7.0.5.5, the migration is successful, if not, then verify all the log files. In any case it is a good practice to check all log files.

Note: During the migration steps you might see the following SQLSTATE numbers in your log files. These can be ignored because they are only warnings:
- `SQLSTATE=02000 (...the result set of the query is an empty table)`
- `SQLSTATE=42704 (...is an undefined name)`

Earned Value enablement

If you are using the Earned Value functionality of Rational Portfolio Manager and you want the values to be updated on a regular basis for all projects, then you can schedule a job that will execute the stored procedure call to update these values. You can use the `rollup_ev.sql` file located in the `%MIGRATION_HOME%\Database\DB2\Windows\migration` directory by editing the file and adding the right parameters for the database name, username, and password. Username and password can be the username and password of the instance owner or the connected user depending on the database scenario you are using. This file connects to the Rational Portfolio Manager database specified and calls the earned value stored procedure to update Earned Value for all projects.

Note: It is a good practice to run the scheduled job during off hours when system usage is minimal.

Migrating Rational Portfolio Manager on Oracle for Windows

This section describes how to migrate the Rational Portfolio Manager database from version 7.0.4.4 to version 7.0.5.5 on Oracle for Windows.

It is also possible to run the migration scripts from a remote machine. In this case, you need to make sure you can connect to the remote database using SQLplus.

Note: Rational Portfolio Manager 7.0.5.5 migration script uses `SQLplus.exe` located under `%ORACLE_HOME%\bin` directory. Therefore, you should run the migration scripts on a machine that has this utility.

Prerequisites for migration

- A successful Rational Portfolio Manager version 7.0.4.4 installation
- Rational Portfolio Manager version 7.0.5.5 migration package
- `SQLplus.exe` utility for running Oracle migration scripts

Migration steps

Rational Portfolio Manager migration to version 7.0.5.5 has two steps:
1. Migrating RPM schema owner
2. Migrating RPM connected user (if a connected user is used)

Steps to migrate RPM schema owner

1. Tablespace used in the migration scripts are:
   - `PMO_IDX_64K` for indexes
   - `PMO_DATA_64K` for tables
   - `PMO_LOB_64K` for lobs

   Note: If the tablespace in your RPM database is different from the above mentioned names, you need to change the name of the tablespace in the migration scripts in the following file:

   `%MIGRATION_HOME%\Database\Oracle\scripts\step1.sql`
2. Stop the application server associated with the RPM database.
3. Shut down the RPM database.
4. Start the RPM database.

5. Open a command prompt window and change the directory to
   %MIGRATION_HOME%\Database\Oracle and run mig_owner.bat.
6. Have you performed pre_migration steps? Before migrating you need to back
   up your database, if you have a back up, answer yes to continue. If you
   answer no, no migration will be performed.
7. The script uses the %ORACLE_HOME% environment variable of the machine from
   which you are running the script. Enter the required information when
   prompted.
8. Is your RPM database installed on this machine? If you answer no, you will
   be prompted to enter:
   • TNS string
   • IBMRPM schema owner
   • IBMRPM schema owner password

   If you answer yes, you will be prompted to enter:
   • ORACLE_SID value
   • IBMRPM schema owner
   • IBMRPM schema owner password
9. Are you sure you want to migrate your database now? Answer yes to start
   the migration.
10. At the end of migration you will be provided with a migration report. The
    migration report includes the following information:
    • The current version of the database (which at this level must be 7.0.5.5)
    • The number of invalid objects in the database (which should be 0)
    • The number of objects (needed for 7.0.5.5) for each object type and their
      status in the migrated RPM database

      Comparing the number of objects for each object type in the
      YOUR_RPM_DATABASE and **NUMBER_OF_OBJECTS_MUST_BE**
      columns helps you to check if the migration has been successful. These
      values should be equal.
    • The name and type of the missing objects in your database
    • The list of error messages generated during DDL migration (if any)
11. Migration log files will be created under %MIGRATION_HOME%\Database\Oracle\
    logs folder. It is always a good practice to look at the log files to see if the
    migration was successful.
12. Stop Oracle listener

    %ORACLE_HOME%\bin\lsnrctl stop
13. LevelingLib.dll located under %MIGRATION_HOME%\Database\Oracle\leveling\
    win\[your Oracle version]\ folder must be manually copied to the right
    location on the database server
14. Start Oracle listener

    %ORACLE_HOME%\bin\lsnrctl start

Steps to migrate RPM connected user

1. Open a command prompt window and change the directory to
   %MIGRATION_HOME%\Database\Oracle and run mig_con_user.bat.
2. The script uses your %ORACLE_HOME% environment variable of the machine from
   which you are running the script. Enter the required information when
   prompted.

3. Is your RPM database installed on this machine? If you answer no, you will be prompted to enter:
   - TNS string
   - IBMRPM schema owner
   - IBMRPM schema owner password

   If you answer yes, you will be prompted to enter:
   - Verify the ORACLE_SID value
   - Enter IBMRPM schema owner
   - Enter IBMRPM schema owner password
4. Enter the RPM connected user name when prompted.
5. Enter the RPM connected user password when prompted.
6. Enter the password for sys user when prompted.
7. Are you sure you want to migrate your connected user now? Answer yes to start the migration.
8. Migration log files will be created under `%MIGRATION_HOME%\Database\Oracle\ logs` folder. It is always a good practice to look at the log files to see if migration was successful.

Deploying Rational Portfolio Manager application server on the UNIX system

Copying the RPMVersion.xml file

To copy the `RPMVersion.xml` file:
1. Go to `${MIGRATION_HOME}/WebServer` directory and copy `RPMVersion.xml` file into the `${IBMRPM_WAR_HOME}/WEB-INF/classes/conf` directory.

Copying the com directory

Note: Make sure you have a back up of your existing `com` directory before copying.

To copy the `com` directory:
1. Go to `${MIGRATION_HOME}/WebServer` directory and copy `com` directory into the `${IBMRPM_WAR_HOME}/WEB-INF/classes` directory.

Copying the client installer files

To copy the Client installer files:
1. Go to `${MIGRATION_HOME}/Client_Installers` directory and copy all files into `${IBMRPM_WAR_HOME}/client_installer`

Deploying the RPM Web Services API ear module

Note: If you have already deployed RPM Web Services API with your RPM 7.0 installation, you must uninstall the previous API module from your application server and deploy the new ear file supplied with this migration package.

The `rpm-web-services.ear` and `rpm-web-services.war` files are located in the `${MIGRATION_PACKAGE}/WebServicesAPI` folder.

For detail information about RPM Web Services API, refer to Web Services API guide located in the ${MIGRATION_PACKAGE}/Documents folder.

Deploying the Rational ClearQuest® Integration ear module

Note: If you have already deployed Rational ClearQuest Integration with your RPM 7.0 installation, you must uninstall the previous ear module from your application server and deploy the new ear file supplied with this migration package.

The rpm-cq-ws.ear and rpm-cq-ws.war files are located in the ${MIGRATION_PACKAGE}/RPMCQIntegration folder.

For assistance, refer to *RPM/CQ Integration guide* supplied with Rational Portfolio Manager version 7.0.4.4.

Verifying the installation

This section describes the process of verifying that the installation is completed and correctly configured.

Validating the database connection

Validate that the connection to the database was successful by opening the ${WAS_HOME}/AppServer/logs/server1/SystemOut.log file. Look for ConnectionPool Loaded (####ms) value. This value validates that the application is connected to the database.

Testing the Web browser connection

To test the Web browser connection:

1. Open a browser window.
2. Go to http://hostname:portnumber/webapp/IBMRPM/PMOServlet.wss

You should see the welcome screen for IBM Rational Portfolio Manager.

Post-installation activities

For post-installation steps, refer to the *Administration_Guide.pdf* document. The post-installation files are located under ${MIGRATION_HOME}/Post-Install directory.

Deploying Rational Portfolio Manager Application Server on Windows

Copying the RPMVersion.xml file

To copy the RPMVersion.xml file:

1. Go to %MIGRATION_HOME%\WebServer directory and copy RPMVersion.xml file into the %IBMRPM_WAR_HOME%\WEB-INF\classes\conf directory.

Copying the com directory

Note: Make sure that you have a backup of your existing com directory before copying.

To copy the com directory:

1. Go to %MIGRATION_HOME%\WebServer directory and copy com directory into the %IBMRPM_WAR_HOME%\WEB-INF\classes directory.

Copying the client installer files

To copy the client installer files:

1. Go to `%MIGRATION_HOME%\Client_Installers` folder and copy all files into `%IBMRPM_WAR_HOME%\client_installer`.

Deploying RPM Web Services API ear module

Note: If you have already deployed RPM Web Services API with your RPM 7.0 installation, you need to uninstall the previous API module from your Application Server and deploy the new ear file supplied with this migration package.

The `rpm-web-services.ear` and `rpm-web-services.war` files are located in the `%MIGRATION_PACKAGE%\WebServicesAPI` folder.

For detail information about RPM Web Services API refer to Web Services API guide located in the `%MIGRATION_PACKAGE%\Documents` folder.

Deploying the Rational ClearQuest Integration ear module

Note: If you have already deployed Rational ClearQuest Integration with your RPM 7.0 installation, you must uninstall the previous ear module from your application server and deploy the new ear file supplied with this migration package.

The `rpm-cq-ws.ear` and `rpm-cq-ws.war` files are located in the `%MIGRATION_PACKAGE%\RPMCQIntegration` folder.

For assistance, refer to *RPM/CQ Integration guide* supplied with Rational Portfolio Manager version 7.0.4.4.

Verifying the installation

This section describes the process of verifying that the installation is completed and correctly configured.

Validating the database connection

Validate that the connection to the database was successful by opening the `%WAS_HOME%\AppServer\logs\server1\SystemOut.log` file. Look for `ConnectionPool Loaded (####ms)` value. This value validates that the application is connected to the database.

Testing the Web browser connection

To test the Web browser connection:

1. Open a browser window.
2. Go to `http://hostname:portnumber/webapp/IBMRPM/PMOServlet.wss`

You should see the welcome screen for IBM Rational Portfolio Manager.

Post-installation activities

For post-installation steps, refer to the *Administration_Guide.pdf* document. The post-installation files are located under the `%MIGRATION_HOME%\Post-Install` directory.

Chapter 4. Contacting IBM Customer Support for Rational software products

If you have questions about installing, using, or maintaining this product, contact IBM Customer Support as follows:

The IBM Software Support Internet site provides you with self-help resources and electronic problem submission. The IBM Software Support home page for Rational products can be found at http://www.ibm.com/software/rational/support/.

Voice Support is available to all current contract holders by dialing a telephone number in your country (where available). For specific country phone number, go to http://www.ibm.com/planetwide/.

Note: When you contact IBM Customer Support, please be prepared to supply the following information:
- Your name, company name, ICN number, telephone number, and e-mail address
- Your operating system, version number, and any service packs or patches you have applied
- Your database, version number, and any service packs or patches you have applied
- Your application server, version number, and any service packs or patches you have applied
- Product name and release number
- Your PMR number (if you are following up on a previously reported problem)

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